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UNDER THE EDITORIAL DIRECTION OF

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A COSMOPOLITAN BIWEEKLY FOR THE GENERAL PRACTITIONER

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Editorial Department.

Cleanliness and Condemnation of Douching after Childbirth.

THE modern practice of obstetrics has attained a wonderful record in overcoming puerperal infections, and all has resulted from following the practice of being clean. Cleanliness is godliness in obstetric practice, and he who fails to follow such practice is guilty of gross neglect. Ignorance of law excuses no man, and for the same reason ignorance of asepsis excuses no practitioner in this day and age, when every one should have learned the lesson of how to be clean. The following excellent comments by Marx (*Medical Critic*) on this subject emphasize the importance of cleanliness in peurperal cases:

"It has been a dictum from time immemorial, which still holds to this day, that when one enters the uterus or vagina after labor for any reason whatsoever that part must be at once washed out by an antiseptic solution in order to prevent a possible sepsis. This is one of the obselete measures which has been carried down for a generation past and against which we wish to enter an emphatic protest. There are many minor facts connected with the art and science of midwifery that need correction in the light of modern experience. This we will attempt to do from time to time as the occasion may arise in the future. We have for many years considered the intra-uterine tube for many purposes an entirely useless instrument and this for the following reasons: 1. The uterus is an organ free under normal conditions from pathogenic bacteria. If these be found present they must of necessity have been introduced from without; consequently the result of evident faulty technic. Here the blame must rest with those in charge. 2. The uterine cavity being germ free and not infected by either instrument or hand it must still remain sterile. These premises being correct why does it become necessary to irrigate such an organ? Looking the subject squarely in the face we have an organ that is surigcally clean invaded by an object that *should* be surgically clean; what can possibly be the object of washing out such an organ except to

the detriment of the patient? Of course if the operator is not capable of rendering himself aseptic we have a condition which ought not enter into consideration. Such a man should not be allowed to attend any woman until he has learned *how to be clean.* If such an individual has infected his patient can any make us believe that a mere washing out of the uterus will lessen the danger? We believe not, quite the contrary, since if he be unclean in one direction he will be in all; he will follow up his unclean work by washing out the genital tract with an unclean tube with a poisonous antiseptic or more probable infected solution. The attempt to anticipate septic infection by such measures is as irrational as to attempt to melt an iceberg with a hand atomizer. Prophylaxis against child bed fever does not consist in washing out every puerperal uterus that has been entered. There is but one secret and that is to insure against inviting sepsis by keeping the hands and all objects that come in contact with the patient clean as one is capable of. We see but one indication for the use of the intra-uterine tube after labor and that is to combat hemorrhage from an atonic uterus. We have not, except for this condition, used the uterine tube to prevent puerperal sepsis for many years and for the reasons stated above. No matter what operation we have been called upon to do, whether upon the living or dead or macerated fetus, we have always refrained from douching out the canal for the purpose of possibly limiting a septic infection. We have absolute faith in our ability to render our hands as surgically clean as they can possibly be made. Again we state that knowing that we have not infected the woman because we have introduced our hands into the uterus, we feel that by such intra-uterine douching manipulations we can only do harm by inviting sepsis if we attempt to clean an organ that is already so by the aid of the providence of kind Nature. We will be asked if we do not wash out after birth of a decomposed fetus? To this we answer an emphatic no. Under these conditions if infection occurs it is the result of the introduction of pathogenic bacteria from without and so long as the operator is clean he need have no fear. All the foregoing remarks are based upon the result of a large practical experience, but in order to clinch the subject we undertook a certain number of bacterial experiments in order to show that under all conditions where the case had been conducted under the principles of modern aseptic treatment, no matter what the status of the child had been, the uterine cavity was always found sterile.

"It will be useless to enter into the details of the technic of how this was done except to state that all possible sources of contamination were excluded as rigidly as possible. The cases were not selected ones, but a group of 15 women, all recently confined, had their uterine contents removed as a smear and placed on a culture medium and this smear incubated for a number of days. The result proved that all the tests, and we can state that about 60 cultures were grown, remained perfectly sterile—not one of them showed a single growth of a pathogenic coccus. None of these women had their uteri washed out after labor in order to inhibit infection; some of the labors were normal, others were abnormal and instrumental and in many of the women the genital tract had been invaded after

the birth of the child for one reason or another. The result was that we had no infections as a sequence of this treatment because, first, we were surgically clean at each case, and second, we felt that this was all that was necessary, even though we were compelled to occasionally invade the uterine cavity."

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The Mississippi Valley Medical Association.

THE twenty-eighth annual meeting of the Mississippi Valley Medical Association, at Kansas City, October 15, 16 and 17, confirmed the usefulness of this society as a medium of interchange of thought for medical men in the great Mississippi Valley. The representation from nearly every State in the valley, together with men from the East and far West, more clearly indicated than ever before the advantages of a fall meeting of a large medical society, at which the subjects uppermost in current medical progress can be discussed, the fraternal spirit encouraged and incentive given for better work during the busy winter season. The M. V. M. A. is not wholly a homogeneous body, because it has no delegates, no unit of organization, but after next year it will be an integral part of the reorganized American Medical Association—a district of the A. M. A., in consequence of which the M. V. M. A. will be entitled to representation in the parent organization. Surely the wisdom of this affiliation is apparent to all, and it behooves every one interested in the welfare of the reorganization of the A. M. A. to get in line with this great movement and lend support to the "new order of things" in medical organization.

The Kansas City meeting is but the index of future possibilities. The program on this occasion represented careful thought, special consideration of the practical and useful in medical progress. Features of special importance were the addresses by Dr. Hugh T. Patrick in Medicine, and George W. Crile in Surgery (abstracts of which will be found in this issue); both were characteristic of the individual work which these progressive young men are doing in their respective fields of modern medicine. These discussions in Medicine and Surgery embraced new thoughts and research work, thus making them valuable in their suggestions. The regular program was full of good, sound papers, none sensational, and all such as would benefit him who come to learn.

The M. V. M. A. is a working organization, largely so through the energy and push of the indefatigable secretary, who has won deserved recognition for the character of the work he has done, the excellency of the program and the continuous interest in the welfare of the association. As society is known by its workers, and for this reason the M. V. M. A., with a membership of progressive men, is known throughout this land.

The Kansas City meeting was characterized by a strict attention to the purpose of the organizationn, and a good meeting it was too. The profession of Kansas City were especially considerate in the arrangements for the meeting, the sessions being held in the Midland Hotel, where am-

ple room was provided, and every attention given to the details upon which so much depends.

The entertainments offered by the local profession were unique and enjoyable; a musicale and tallyho ride for the ladies; a smoker, rich in its varied phases of enjoyment, for the doctors, and together with the special kindnesses of the Academy of Medicine and the Kansas City Medical Society made the stay of the visiting members pleasing, profitable and long to be remembered.

Another feature of this meeting was the exhibit, which while not large, was made up of products of some of the most progressive of modern pharmaceutical chemists, instrument makers and medical and surgical specialties. The exhibitors were Parke, Davis & Co., Searle & Hereth, Armour, Frederick Stearns, Sharp & Dohme, Keasbey & Mattison, Truax, Greene & Co., Sharp & Smith, White Rock Lithia Water, Bethesda Water, Apollinaris and Apenta Waters, Eskay's Albuminized Food, Horlick's Malted Milk, Mellins Food, Goodrich Rubber Co., Maltine, Antiphlogistine, D. Appleton & Co., W. T. Keener Co., Matthews Book Co. and others.

The selection of officers for the ensuing year was especially in keeping with the spirit of progress and fraternalism which pervades this society. Dr. Edwin Walker, of Evansville, Indiana, was chosen for President. It is needless to add that he is a type of the true American physician, full of enthusiasm, a hard worker, and with a personality that gives confidence and trust in his abilities. The society will prosper under his wise guidance.

A number of the papers read at this meeting will be found in this issue, together with the proceedings, which will be published in full. Next issue will contain additional papers.

Southern Surgical and Gynecological Association.

The fifteenth annual session of the Southern Surgical and Gynecological Association will meet at Cincinnati, Ohio, November 11, 12, 13, 1902. The following is the preliminary program: Presidential address, W. E. B. Davis, Birmingham; The Present Status of Treatment of Hypertrophy of the Prostate, N. P. Dandridge, Cincinnati; Drainage, S. J. Mixter, Boston; Conservative Operations upon the Ovary, L. H. Dunning, Indianapolis; The Curse of Gonorrhea, Joseph Taber Johnson, Washington; Cysts of the Pancreas: with Report of Cases, A. M. Cartledge, Louisville; Appendicitis and Movable Kidney, W. P. Manton, Detroit; Indications for Extirpation of the Gall Bladder and Technique of the Operation, Maurice H. Richardson, Boston; Perineorrhaphy, illustrated, Geo. H. Noble, Atlanta; Pregnancy and Parturition following Complete Nepro-Ureterectomy, J. Wesley Bovee, Washington; The Significance of Paralysis of the Bowel, Geo. S. Brown, Birmingham; Personal Experience with McGraw's Method of Gastro-Enterostomy, Samuel Lloyd, New York; Carcinoma in the Female, W. F. Westmoreland, Atlanta; Gas Bacillus Infection, with Report of Cases, Robert T. Morris, New York; Surgical vs. Medical Treatment Cholelithiasis, Jno. B. Deaver, Philadelphia;

Anterior Transplantation of Round Ligaments for Uterine Displacement, A. H. Ferguson, Chicago; Tubercular Peritonitis, J. B. Murphy, Chicago; Prolonged Intubation: report of case, J. W. Long, Salisbury; Prolapsus of the Uterus, Chas. R. Robins, Richmond; Some Autopsy Findings in Cases of Still-born Children, C. Jeff Miller, New Orleans; (a) Diseases of the Ribs following Typhoid Fever, (b) A New Holder for Gigli Saws, J. Shelton Horsley, El Paso; Fracture of the Spine: Three cases, Howard J. Williams, Macon; Notes on the Operative Treatment of Fractured Patella, R. Matas, New Orleans; A Study of Adrenal Growths: report of three cases of Adenoma, J. E. Thompson, Galveston; Stone in the Kidney, Mac Rogers, Birmingham; Unilateral Disease of the Kidney, Simulating Stone, and its Treatment, Jos. Ransohoff, Cincinnati; Endometritis, Hermann J. Boldt, New York; What is the Limit of Safety where more than one Operation is Necessary? A. Vander Veer, Albany; Dependent Drainage in Inter-pelvic and Intra-peritoneal infection in Men by incising the Perineum separating the Rectum from the Prostate and Bladder, and Puncture of the Recto-vesical pouch of the Peritoneum, Hugh M. Taylor, Richmond; The Sequelae of Appendiceal Operations and repeated operations, Joseph Price, Philadelphia; The Use of the Electric Cautery Clamp in the Treatment of Cancer of the Uterus, Chas. P. Noble, Philadelphia; Gastro-Enterostomy for the Relief of certain Chronic Non-malignant Diseases of the Stomach, W. D Haggard, Nashville; Paper (title not announced), Hugh H. Young, Baltimore; Paper (title not announced), Frank D. Smythe, Memphis; Paper (title not announced), Floyd W. McRae, Atlanta; Paper (title not announced), George Ben Johnston, Richmond.

The following are the officers: President, W. E. B. Davis, Birmingham; Vice-Presidents, J. Wesley Bovee, Washington, John W. Long, Salisbury; Secretary, W. D. Haggard, Nashville; Treasurer, Floyd W. McRae, Atlanta; Council, George J. Engelmann, Boston; Ernest S. Lewis, New Orleans; George Ben Johnston, Richmond; L. McLane Tiffany, Baltimore; Lewis S. McMurtry, Louisville; Chairman Committee of Arrangements, Thaddeus A. Reamy, Cincinnati. All railroads will give one and one-third fare on the certificate plan. Membership blanks may be had upon application. Titles of papers or corrections should be sent at once to W. D. Haggard, M. D., secretary, 302 North Vine street, Nashville, Tennessee.

OUR ADVERTISING PATRONS.

The Medical Fortnightly has upon various occasions called attention with pride to its list of advertising patrons, and may be pardoned perhaps for printing below a few of the expressions of those patrons who are thus early reserving their space for 1903. There is a growing custom, and a very good one too, among the better class of advertisers of placing their contracts to run until forbidden, and in this way those holding special or preferred space need have no apprehension of being disturbed by

some enterprising competitor. It has ever been the policy of the FORTNIGHTLY to cater particularly to its old and staunch friends, who have been with us from year to year, and watched the growth of our magazine from its beginning. The renewals are coming in earlier this year than ever, indicating that the prospects for a prosperous season were never brighter. The first letter received was from the old reliable house, Wm. R. Warner & Co., and others followed in the order indicated below:

PHILADELPHIA, PA., October 7, 1902.

FORTNIGHTLY PRESS Co., St. Louis, Mo.:

Gentlemen:—We take pleasure in handing you herewith our renewal order for our advertisement, to occupy the same position as heretofore, and we beg to say that we had concluded to authorize you to continue this advertisement until forbidden. We hope this will be satisfactory to you.

Congratulating you upon the continued success indicated by your progressive magazine, we remain, Yours very truly,

WM. R. WARNER & Co.

SARATOGA SPRINGS, N. Y., October 7, 1902.

FORTNIGHTLY PRESS Co., St. Louis, Mo.:

Gentlemen:—Enclosed you will find our renewal contract with you for 1903, and you will please continue our advertisement as before.

With best wishes for the continued success of the publication, we are, Yours very truly,

G. F. HARVEY Co.,
Per L. H. Cramer.

NEW YORK, N. Y., October 8, 1902.

FORTNIGHTLY PRESS Co., St. Louis, Mo.

Gentlemen:—We wish to continue our advertisement in the MEDICAL FORTNIGHTLY, and would state that the same has been entirely satisfactory to us. With best wishes for you success, we remain,

Yours very truly. KRESS & OWEN Co.
Samuel Owen, Pres.

ALMA, MICH., October 8, 1902.

FORTNIGHTLY PRESS Co., St. Louis, Mo.

Gentlemen:—We wish to reserve for the coming year the same space that we now occupy, on the front cover of the MEDICAL FORTNIGHTLY, and you may consider this a contract for 1903. Yours very truly,

ALMA SANITARIUM Co.,
Geo. F. Butler, Med. Supt.

NEW YORK CITY, October 16th, 1902.

FORTNIGHTLY PRESS Co., St. Louis, Mo.

Gentlemen:—We are handing you today renewal contract for our space in your magazine, which we have altered to read "Till Forbid," which obviates the necessity for further renewal. We are very much pleased to note that your journal has been receivng evidence of further confidence on the part of the profession and medical societies, and wishing the FORTNIGHTLY and its esteemed staff continued prosperity, we remain,

Yours very truly, PURDUE FREDERICK Co.

Original Department.

PAPERS for the Original Department should be in hand one month in advance, and contributed to THE MEDICAL FORTNIGHTLY exclusively. A liberal number of extra copies will be furnished authors, and reprints may be obtained at reasonable rates, if request accompanies the manuscript. Engravings from photographs furnished free.

Contributions, and books for review, should be sent to the Editors, 312 Century Building, St. Louis.

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Smallpox.

By John Mullin Batten, B. E., M. D.,

DOWNINGTOWN, PA.

Read before the Mississippi Valley Medical Association, Kansas City, October 15, 1902.

IN the endemic or epidemic of smallpox at Pittsburgh, Pa., in 1871, I had an opportunity of observing it in all its phases. In certain families there was immunity from the disease, while in other families there was extreme predisposition to take the disease. There seems to be an heredity of immunity in some families from all diseases, while other families seem to be predisposed to take all diseases, and smallpox is no exception to this rule. In making observation of those immune from smallpox I found that they had been made immune from the disease either by heredity; by having variola or varioloid, or by vaccination of themselves, or either one or both of their parents. This immunity in some cases was perfect, while in other cases it was only partial. The latter was attacked with mild smallpox or varioloid. The most cases of confluent smallpox I witnessed occurred among those who had not themselves been vaccinated nor either of their parents. While a perfect vaccination or an attack of variola or varioloid is generally a protection against all the varieties of smallpox, yet not in all cases, as I witnessed in 1871 in the case of Mrs. W., a married woman, mother of several children, who suffered with a second attack of confluent smallpox. It is my opinion that a perfect vaccination in youth is a perfect protection to the individual so vaccinated through the remainder of his life to all the varieties of smallpox.

Variola is derived from the Latin varus, a blotch or pimple, while pox is of Saxon origin, meaning a bag or pouch; the prefix small was added in the 15th century. The first appearance of smallpox occurred A. D. 569, about the date of the birth of Mohammed; it seems then to have commenced in Arabia and the raising of the siege of Mecca by the Abyssinian army is attributed to ravages made by smallpox among the troops. The new part which Arabia under Mohammed and his followers was made to play in history contributed to the rapid spread of smallpox, throughout the world. Rhazes, an Arabian physician who practiced at Bagdad about the beginning of the 10th century, is the first medical author of whom we read whose writings have come down to us who treats expressly of the disease; it is known, however, that he quotes several of his predecessors, one of whom flourished in the year Hegira 622. Measles and scarlet fever were first confounded with smallpox, but Sydenham was the first to point out the essential differences between the diseases. Boerhaave was the first to proclaim that smallpox was propagated by contagion. The stage of incubation is the period that elapses from the time the contagion is taken into the system till it manifests itself in the initiatory fever, and this period is about fourteen days, although the time may be longer or shorter. During this period the patient usually remains in his accustomed health. The first symptoms of the disease are headache, chills, fever, accompanied with pains in the back, particularly in the loins. There is also nausea and vomiting. If there be severe pain in the back accompanied with high fever we may expect a severe form of the disease. Convulsions often usher in the disease in children. About the third or fourth day, more generally the fourth day of the disease, the rash makes its appearance on the face, then on the neck and wrists, then on the trunk and finally on the extremities. On the fifth day the eruption is usually complete. It first consists of minute papules or pimples; these papules are converted into vesicles filled with thin lymph about the fourth day of the eruption having a depression in their center, when they are termed umbilicated. These vesicles now become surrounded with an areola, which become a dark cinnamon color. The lymph is finally converted into pus which extends their walls until they become hemispherical. A dark spot makes its appearance about the eighth day of the eruption at the center of the pustule and is converted into a dry scab. When the scab falls it leaves either an indelicate cicatrix or a purplish mark, which fades very slowly, and when exposed to a cool atmosphere for a long time is rendered very distinct. In disappearing the scabs take the same order as the appearance of the eruption, first they fall off the face, then they fall off the neck and wrists, then off the trunk, and lastly off the extremities. When the pustules are far apart and few in number the disease is known as discrete smallpox; but when they are so numerous as to touch one another or run together the disease is known as confluent smallpox; between these two grades of smallpox is an intermediate grade or variety named semi-confluent smallpox, or coherent is often spoken of. In the discrete form the fever subsides on the appearance of the eruption, and if the pustules are few the fever does not re-appear, but in the

confluent form the maturation of the pustules is attended with more or less fever. The throat is sore and red with some pustules scattered on the fauces, roof of the mouth, and inside of the cheeks; these conditions of the throat and mouth occur when the eruption makes its appearance on the surface of the body; the patient is more or less affected with salivation at the same time. The cellular tissue is involved in confluent smallpox, the swelling is great and the patient is unable to open his eyes. The eruption on his face coalesces and makes one huge sore. The itching is intense and the fever is of a typhoid kind. The patient is delirious, sleepless and restless, while the pulse are small, feeble and frequent. In these cases the inflammation of the mouth, nasal passages, larynx and pharynx adds much to the distress of the patient. This condition sometimes produces suffocation. The odor of the confluent form of the disease is very unpleasant.

In an epidemic or endemic of smallpox when the disease has become well established the diagnosis is not difficult, as all cases of sickness beginning with fever, headache and backache accompanied with nausea and vomiting is likely to terminate in smallpox. It is only in the first cases of an endemic or epidemic, or isolated or sporadic cases that the diagnosis of the disease might become difficult.

To make a correct diagnosis of variola at the first inception of the disease in a locality or neighborhood or community is very important, as such a diagnosis may be the means of checking the disease from spreading and growing into an endemic or epidemic. Besides a correct diagnosis of smallpox by a physician tends to establish the confidence of the people in the physician who makes a correct diagnosis of the disease and may prevent him from the danger of defending himself in a suit of malpractice.

Variola may be distinguished from measles by the following differential symptoms. In variola, as we have seen, the eruption comes out on the face, then on the neck and wrists, then on the trunk, and lastly on the extremities. In measles the eruption comes out first on the face and trunk, and also there is a catarrh of the mucous membranes of the air passages and of the eyes. In smallpox the fever abates on the appearance of the eruption to be resumed to a greater or less degree at the maturation of the pustular stage, whereas in rubeola, the fever continues throughout the eruptive period. The papules even in the confluent forms are remarkably discrete and exhibit not the slightest tendency to grouping, while the maculo-papules of rubeola are developed simultaneously on the face and trunk, while those of variola commonly appear first on the face, then on the neck and wrists, then on the trunk, and lastly on the extremities, the older and larger, therefore, in the site of the earliest appearance. The eruption of measles is made to disappear or pale on pressure beneath the fingers, while there is greater persistence of color in the variolous papules. In measles in passing the flat of the hand over the surface of the body the pimples are less distinct than in smallpox. Even with all the differential symptoms in mind it may be difficult to make a differential diagnosis in certain stages of the disease between smallpox and measles, but by waiting twenty-four hours the difficulty may be cleared up.

With scarlet fever we could scarcely make a mistake in the diagnosis of variola. The rash of scarlet fever is entirely different and makes its

appearance on the second day of the fever, while in variola the eruption comes out on the fourth day of the disease, and the fever in scarlet fever is continuous throughout the eruptive period. The distinguishing features of scarlet fever is the strawberry tongue, the anginose condition of the throat, the boiled lobster color of the skin and the fine appearance of the rash.

The pustular stage of variola may be confounded with the pustular stage of syphilis, but the history of the disease, the chancre, the six weeks to three months incubation and the chronic form of the disease would go far in differentiating smallpox from syphilis.

J. C. Sullivan, Cairo, Illinois, emphasized the point that when the patient complains of persistent backache followed by fever and pustular eruption affecting the palms of the hands and soles of the feet protruding beneath the outer skin, we have a case of smallpox to deal with, no matter how mild or insignificant it may appear and confluent or hemorrhagic smallpox may be contracted from it.

Variola and varioloid may be distinguished from varicella by the fact that there is existing in the locality in which the suspected case of varicella appears an endemic or epidemic of smallpox; by a greater rise in the fever in the ferbile stage; by the typical papular stage of the eruption at the outset and by the typical pustular stage before desiccation takes place; by the confluent lesions in confluent cases; and by the marked stadium of the disease. Varicella is usually a disease of children and is of mild character, the fever, papules and pustules are not as marked as in smallpox and varioloid, though in the latter it may be extremely difficult, if not impossible, to make a differential diagnosis. The sooner it is known, not only by the profession, but by the laity, that intermediate forms do occur that cannot be distinguished one from the other, the better it will be for both. Scattered papulo-vesicular and vesico-pustular lesions appearing after high fever and continuing to mature for over forty-eight hours must always be viewed with suspicion. Superficial vesicles on the third day of the disease or commingled with very minute and superficial dustules should be looked upon as characteristic of varicella.

In an editorial on "The Early Recognition of Smallpox" in the American Medical Association Journal, Vol. xxxix, No. 2, page 83, the editor speaks of the great importance and value of an early recognition of smallpox, so that by proper methods and means the spread of smallpox could be prevented. He quotes an article on the diagnosis of eruptive fevers by Professor Courmont of Lyons, who claims that a diagnosis of smallpox can be made at a distance after an examination of a single drop of the patient's blood.

The prognosis of variola vera is very fatal, as at least fifteen to fifty per centum die of the disease. It is most fatal among pregnant women, new-born babies, the aged, and among those with their systems saturated with aclohol. The hemorrhagic and purpuric symptoms are highly portentous and indicate a fatal result.

I believe a perfect vaccination is usually a perfect immunity during life from the disease. In 1871 I used humanized vaccine and inserted

the vaccine into the arm of the unprotected in three different places, sometimes one, two or three of these took perfectly with very little ulceration, and were without any bad results as far as my observation was extended. These vaccinations were often made in a family of children where there was existing at the time a case of smallpox in the same house; in this way I often caused an immunity to these children thus exposed. It is my opinion that the humanized vaccine—barring the danger of the spread of disease—is the best and most protective.

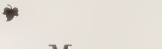
Dr. Robert N. Wilson, Philadelphia, Pa., says: It seems that glycerinated virus, as well as the vicious influence of the shield was disposed to present a more extensive ulcerative surface and a greater tendency to sloughing than the dried virus or arm to arm method. But he says the latter method is out of the question on accouunt of the rapid spread of syphilis among the masses, and if it eventually proves true that glycerinated virus opens up a broader avenue to the tetanic germ into the system than the less cleanly and safer dried point we will have to beat a retreat till we discover a substitute for glycerin that does not carry with it, its disadvantages (Vol. xxxviii, No. 19, A. M. A. Journal).

The very greatest care should be taken to prevent sepsis, or diseased germs from entering the vaccine in the preparation of it, then we could have pure vaccine to begin with, and then the operation of vaccination should be done aseptically and antiseptically. There would then be very little danger of having anything but a healthy, pure and perfect vaccination. To test the perfection of the vaccination the individual thus vaccinated may have the operation repeated in the same aseptic and antiseptic way at short intervals until it is found that the individual is immune.

Hauenstein argues that humanized vaccine is preferable to bovine vaccine, and says the claim of some practitioners against the latter is absurd, and hints that the epidemic of smallpox all over the world at this time is due to the adoption of bovine vaccine. He thinks the humanized vaccine will gain in favor.

The treatment of smallpox is largely expectant. Ointments and baths of mercury are used, and Finsen's phototherapy are recommended and highly satisfactory in the maturation period. The great object to be aimed at in the treatment of smallpox is cleanliness, fresh air, proper nourishment, and make the patient as comfortable as possible.

Dr. E. W. Ridings in a paper before the Tennessee State Medical Society, states that he believes he has lessened the mortality in smallpox very considerably by subjecting them to bichlorid of mercury baths.



The International Congress at Madrid.—Arrangements have been made for an excursion party to Madrid in April, 1903. The total cost for a trip extending a little over four weeks will be $265. This will include fourteen days' hotel accommodations in Spain and all necessary expenses. The trip will be made via Gibraltar. Full particulars and progamme of the itinerary can be obtained of Dr. Charles Wood Fassett, St. Joseph, Missouri.

Rheumatic Neuritis; Neurasthenia—Report of a Case.

By John J. Taylor, M. D.,

STREATOR, ILL.

Read before the Mississippi Valley Medical Association, Kansas City, October 15, 1902.

THE case I present to you came under my observation in April, 1899, with the following symptoms: Rheumatic pains with crepitus and kinks in nearly every joint and muscle; great pain in the lower extremities day and night; no swelling of joints, excepting two or three finger joints. Tongue flabby, thickened on the right of mesial line, one-half of it loaded through the center with white, slightly yellowish coating.

Breath foul. Urine color sometimes leaving a brick dust in the chamber, quantity appearing normal. Bowels alternating from natural to costiveness and diarrhea. Abdomen always slightly tender and markedly so in palpating over the stomach, liver and kidneys. Skin normal, excepting the occurrence of sweating about the face and neck and calves, and particularly between the ankle and half way up the calves. Appetite good. Does not sleep well in consequence of the pain in the legs, from the ankle to the knees. Pulse 80 to 95; sometimes a temperature of 90 deg. F. Sometimes jaw action slow and almost trismic. Acid bitter eructations; spasm of glottis almost always excited by them. Three weeks later but little change, excepting both legs became anasarcous from ankle to knee with marked edema; pressure would indent and leave finger-point over half an inch deep. The fingers were also edematous, so was the right side and back and upper part of the scalp—occipito-parietal region. He complained of difficulty of walking from a heaviness of the legs and also shortness of breath. Soreness of the calves was so great that he could not sit cross-legged. The swollen condition of the legs always gone in the morning.

In May, 1899, he suffered ten days from a feeling of intense cold in the fingers to the second joint, as if held on ice; and at all times the chair arms felt cold to the hands and arms *through the coat sleeves.* Paper was especially unpleasant to touch, so that newspaper reading without gloves on soon was painful. Knives, spoons and dishes were painful to handle, unless warmed—month of May.

The case now went to Prof. L., who examined him carefully for nerve lesions. Patient made to shut his eyes with feet together, balancing on one foot with eyes shut, walking with eyes closed across the room, and asked to touch the door knob. Walking backwards, turning quickly

around. All of which the patient performed without a fault. There was *complete loss of knee-jerk.* Hot bottles test showed marked changes in sensation, principally at the inner and lower third of the legs. Pin prick was quickly and accurately located. Urine 1036. Bowels about as before mentioned. Appetite not good. Musculo-spiral nerve, ulnar and radial tender to the touch. Does not rest well; general appearance anemic, sallow. Sweats at seat of anasarca in the legs. Headache and neckache, and always relieved by hanging the head over the chair back. Headache limited to occipital base. Effort to go down stairs greater than to go up, at any rate more awkward—legs feel full and stiff in the popliteal space. Pulse 96.

Diagnosis, rheumatic neuritis. Prognosis favorable and to recover in one year. Advised to take mud baths at Mudlovia and later to go to California or Colorado; also to use the Faradic current. While in Mud Springs Dr. Brooks analyzed his urine S. G. 1036, and he mounted the largest crystals of uric acid he ever saw.

June.—On a ranch twelve miles out from Denver—symptoms came on as if the big toes were protruding through holes in his socks, and a gradual extension of the sensation akin to numbness to the calves, and later to the vastus internus muscles; later they became sore with slight power to contract them in a sitting posture. Could not lie stretched at full length—was very difficult to turn in bed. Slept on his back. Muscles generally continue sore. Edema and anasarca worse.

Latter part of November, 1899, he saw Prof. B., who also gave him a most thorough examination of the body, urine and blood.

Diagnosis.—Neurasthenia.

Prognosis.—"Would be well in six months." Advised to go to California. December found him in Redlands, elevation 1300 feet. Professor advised static electricity. He now began to complain of a band across the abdomen and a slight loss of power to shut off micturition completely. A few drops of urine dribbling. Penis always cold at such times. Could not walk up two or three steps without the aid of person or cane, and then only by brinigng one foot up to the other.

February.—Pulse 110 to 115; no exaltation of temperature. Appetite fair; sleeps better; anasarca grows less. Pain in the flexures of the arms and across the wrists constant. Constriction of the pectoral muscles as if grasped by the hands; left side abdominal muscles numb, and also the left side of the penis. Desire to copulate normal and sensation natural, excepting on one occasion the left side of the penis felt numb.

January, 1900.—Dr. P. took the case. In four weeks he was able to walk several blocks. All pain gone and other unpleasant symptoms abating. One condition existing for months, a feeling as if the muscles had shortened, and requiring stretching on rising to the feet before an erect position could be had; was very much better and the anasarca was less.

Diagnosis.—He did not pretend to know enough about the human system to give a diagnosis.

April, May, June and part of July was spent in Riverside. Cal.; altitude 839 feet. July he took a steamship at Port Los Angeles to San

Francisco. Four weeks were spent in Oakland; one month in Colorado and another in Nebraska; there he was cut down with dysentery and nearly died. Came on to Illinois, and after election returned to Riverside December, 1901. Following the dysenteric attack the belly band and chest constriction were worse than at any time. The feet were tender. December, 1901, he had pain in the right heel and very annoying for six weeks. Muscular spasm of the calf muscles began in June, 1901, at morning hour of awaking, never following a day nap. Sometimes very painful, and they followed stretching of the legs, of which there was a strong tendency on awakening. Fibril twitching accompanied, but without pain. Great tenderness followed the muscular spasms.

July, 1902.—For a year and a half he had to have help to put on his coat from rheumatism in the left shoulder. July, two weeks respit from spasms. July, August and September, spasms of the calf muscles and twitching of extensor tendons at the instep very severe. Tongue clean, pulse 80 to 96; digestion faulty; bowels contipated. Knee-jerk August 26, 1902; normal in both legs; returned by degrees in about four weeks, can easily contract the vastus internus muscles sitting. No soreness of any muscles or nerves August 19, 1902.

Prof. L. advised hot baths, mud baths, faradic current, alteratives, tonics, nutritives, anti-rheumatic remedies, hard rubbing. Spent three weeks at Mudlavia with morning hot bath 95 deg. F., 45 to 60 minutes, followed in the afternoon with massage for one hour, derived very little benefit. Went to Colorado at Prof. L.'s suggestion. Kept up his treatment eight months.

Prof. B. saw him late in 1900. He treated him six weeks, and as patient grew worse quit. He advised static electricty, tonics, massage.

Dr. P., osteopath (!) in Redlands gave him first relief. Change of scenery, climate, rest and sun baths at 105 to 112 for an hour every morning wrought improvement.

Patient never suffered from headaches, excepting as stated, at back of brain and the neck, and which were invariably relieved by hanging the head over the chair back; pupils and vision normal; hearing excellent; no vertigo, till August, 1902, when he had several slight attacks always following an acid stomach. No sugar or albumen in the urine at any time. While in Riverside he took daily, or every other day, hot baths for six or seven weeks, completely removing all soreness of the muscles. The patient never had syphilis; never intoxicated, but used spirits sometimes; smoked heavily at one time. Never used opium or any other drug for pleasure. He had pulmonary hemorrhage eight and a half years from 1867 to 1876. In 1875 he expectorated a limy concretion, ring shape, one-half inch across, one-eighth by one-tenth broad and thick; after which gradual improvement took place. He had seen service in the war of the Rebellion, and suffered nineteen consecutive years from diarrhea; discharged at 123 lbs., enlistment weight 159 lbs., fell to 117 lbs. During hemorrhage period, weight 130 to 136. He practised medicine from 1867 to the time of late illness. For several years his weight was 184 to 189 lbs. Ten or fifteen physicians diagnosed his case as tabes dorsalis. The patient stands before you. What think ye?

The Relationship Lues Bears to the Body Politic.

By S. P. Collings, M. D.

HOT SPRINGS, ARK.

President's Address, Mississippi Valley Medical Association, Kansas City, October 15, 1902.

THE honor conferred upon me by this Association at its last annual session, is, I assure you most heartily appreciated; but when I look over the list of names of my illustrious predecessors my heart sinks within me, for in that list I find names familiar to every section of our country, and names which are intimately associated with the advancement and upbuilding of every branch of medical science in America.

The question whether I can fill acceptably the chair held by such men has not been left for me to decide. You have seen fit to elect me to preside over your annual session; I thank you sincerely and I shall bring what talents I possess to the fulfillment of this office.

In the selection of a subject to talk to you about today, I shall digress somewhat from the usual custom followed in an opening address, in that I shall not deal with any recent advance in medicine or surgery, but shall talk to you about a disease which is as old as man and is a subject that from time to time has been ventilated by men, both medical and lay, probably ever since the formation of the world.

I have deemed it best to select the subject, "The Relationship Lues Bears to the Body Politic," for an address for several reasons: First, because of the importance of calling attention constantly to a disease so widespread as this one is; secondly, because it is a disease, which when people are properly educated concerning its frequent occurrence, together with its various modes of transmission from one person to another, can be controlled more effectively than most diseases, of a contagious nature, and lastly, because for the past twenty-five years I have daily been an observer of its frightful ravages upon the body politic, or society at large, and consequently feel that I am better fitted to address you upon this idea than almost any other one that I could select

I know that I may possibly be criticised for calling your attention to a subject of this nature, and that opposition will develop to any plan I might suggest for controlling the spread of this disease, but great reforms are only accomplished, if ever, in the face of both criticism and opposition.

We will first take up briefly the history of this disease, and I would especially call your attention to the evidence of its great antiquity. Its history is so closely interwoven with the history of the world that it is difficult to dissociate the one from the other. It is one of the most ancient, if not the most ancient, of all diseases. Human nature is the same now that it was in the time of Adam and Eve; human impulses, desires and appetites remain now exactly as they were then, so why should not a disease, which according to the best medical testimony of today, has for its principal causation the promiscuous gratification of man's lust, have existed in the earlier days of mankind?

Anyone who will investigate history, both profane and religious, impartially, cannot fail to be impressed with the fact that there existed among all peoples of antiquity, from the earliest records kept by the Chinese and the Hindoos down to the records of the Hebrews, the Greeks and the Romans, a disease characterized by a primary sore at some spot upon the body, which was followed by constitutional symptoms, these latter symptoms first manifesting themselves upon the skin and mucous membranes, and later in the joints, the bones and the viscera.

Nor are the book accounts the only proofs existing which show that syphilis was a disease among the people of antiquity. Anthropology has demonstrated that an affection was present among men in prehistoric times which produced lesions of the bones and of the teeth, corresponding precisely with the lesions of these parts found today in tertiary syphilis and in the inherited forms of this disease. Records show us that in China, 2637 years before Christ, or 4526 years ago, that the Chinese knew of the dualty of the chancre, and also knew that gonorrhea and syphilis had nothing in common with each other. They not only knew these facts, but they were also aware of the fact that the medicine antagonistic to the specific poison was mercury.

From Egypt, that vast storehouse of hidden treasures relating to past history, two authenticated documents have come to us which throw some light upon the disease that existed among the Egyptians at the time of the Pharaohs. One of these documents, the Medical Papyrus of the Berlin Museum, was examined some years since by Chabas, but it does not give much information upon the subject we are dealing with. The other document known as the Ebers papyrus, which is thought to date from the time of Rameses II, about 3000 years ago, and is the most ancient complete book in existence, describes a disease which affected the various parts of the body, was sometimes found involving the abdomen, the extremities, the eyes, the gums, the joints, and also at times the mouth and other localities where the skin and the mucous membrane come together.

Syphilis certainly existed among the Jews centuries before the birth of Christ, for in both profane and biblical history of this remarkable people we find repeated references to a disease running the same course as lues today runs with us. In Leviticus we find Moses, who by the way was one of the greatest sanitarians the world has ever produced, forbidding certain vices: bestiality, incest, abnormal sexual intercourse, and even legal prostitution. The result of the enforcement of these rules and regulations was

that those Jews who were sexual perverts began the worship of Baal Peor, a God of the Moabites, a people who lived adjoining them. This worship of Baal Peor, from what we can learn of it from authenticated documents, was nothing other than a sexual orgie in which the participants gratified every variety of sexual lust. Of course the natural result of these practices was a frightful venereal disease, which when introduced into the Hebrew camp was intensely contagious and spread like wild-fire. The disease assumed such proportions that eventually Moses had 24,000 men, who had contracted it, summarily put to death.

Among the ancient books of the Hindoos, a contagious venereal disease was mentioned as far back as 1000 years before Christ. The Hindoo description of this disease brings lues right before our eyes. No one can read their accounts without knowing that syphilis is the disease meant. They, of course, did not know it by that name, or in fact any of the names we apply to it, but their description of its symptoms are so accurate, that any one familiar with the symptoms of lues cannot for a moment doubt that syphilis is the disease referred to. They, in their descriptions, even referred to plantar and palmar syphilides, to exostoses and to gummate.

Concerning syphilis among the Greeks and Romans, I am not going to say anything other than that it existed and is frequently referred to in literature of these peoples. Any one desiring to investigate the subject can do so for himself. If the Grecian and the Roman literatures contained no reference to this disease, but only set forth the moral and religious conditions existing among these nations, their utter loss of all decency in matters pertaining to sexual and religious affairs would almost force us to admit that this disease existed among such depraved people. What depravity or licentiousness could there be that would not flourish under a Nero?

All during the Middle Ages we find repeated reference in the literature of the various nations to a venereal affection with symptoms such as we find existing in lues today, but in 1494, augmented by centuries of every variety of debauchery that human ingenuity could invent, we find it assuming an epidemic form and spreading more rapidly than it formerly had until all Europe knew and felt its ravages.

Concerning the epidemic of the fifteenth century a good deal has been written. The rapid dissemination of the disease throughout Europe at this time had generally been attributed to the return of the French soldiers from the siege of Naples, which took place in 1494, and in which place for some years previous to the siege, an unusually severe form of the disease had existed. In dealing with this epidemic medical writings are very confused and reflect in a general way the almost universal state of charlatanism and superstition that pervaded not only medical writings, but the writings of every other character of that day. One fact, however, forces itself upon our minds, and this is, that about the time of this epidemic the disease under discussion assumed a malignant form, and although characterized by the same general manifestation, these became more pronounced and more malignant.

So much for a brief synopsis of the history of lues as it existed among the ancient races, and those of the Middle Ages. What do we learn from it? We learn that just in proportion as a people have given themselves over to immorality, or as they have regulated their lives on a decent scale, they have suffered from venereal disease, or they have been comparatively immune from such diseases.

The question then which arises is: "How can the spread of this disease be controlled or prevented?"

My opinion is, that if the public were educated more thoroughly concerning it, as it has been and is being educated concerning the communicability and modes of transmission of tuberculosis, half the battle will have been fought. But just so long as we draw the cloak of secrecy about ourselves with an air of profound dignity, when we should instead give a few words of wisdom; and just as long as a public assume the part of being injured, if not insulted outright, at the mere mention of the name, there will be just that many more innocent victims added to the already appallingly long list. The public must first be willing to learn before it can be taught.

In regard to the acquirement of syphilis, people should be taught that it cannot be communicated only by some infected person, or by some article which has come into contact with the specific poison. For instance, kissing is one of the prolific modes of transmitting this disease from one person to another. Bulkley has shown that this disease can be conveyed, not only by means of knives, forks, cups, glasses and jugs, but that it has even been conveyed by tobacco, pipes, cigars, cigarettes, troches, chewing gum and candy passed from one person to another, and also by shirts, plasters, towels, sponges, toothbrushes, syringes and sick chairs. Nothing is more infectious nor more dangerous to those about it, than a new born babe with inherited syphilis. People should be taught that those who have this disease are for several years after infection a source of danger to those thrown into intimate contact with them, and that each infected person should have his own individual effects, and that these effects should be used by no other person than one infected. Ignorance concerning the modes of transmission from person to person is partially responsible for its widespread distribution, and if we can dispel some of the ignorance, and overcome some of the false modesty with which discussion of this disease is hedged about, we will have made a good start towards preventing its further spread.

The medical profession occupies a peculiarly favorable point of vantage from which to attack this disease, for the family physician comes more intimately into contact with the people of a community and can talk with less reserve upon this subject than any other person.

In looking over the history of syphilis we find one other subject intimately associated with it, namely, prostitution. Every nation apparently has seen some connection between these two subjects, and each has grappled with what it considered the cause in its own way. The Romans and the Greeks believed in regulating the prostitution by legal methods. Of all the races of antiquity the Jews alone seem to have had the proper ideas

regarding prostitution. They believed that to prevent the spread of contagious diseases of this character the prohibition of prostitution was absolutely essential. In our day and time and under our laws and customs, the prohibition of prostitution is not practical. Regulation of this vice by means of sanitary laws and police laws has been tried from the time of the Greeks and the Romans to the present day, and in every instance has proven ineffective in controlling the spread of contagious diseases of this character where these methods alone have been relied upon. Registration and regulation have been in vogue in Paris for the past hundred years, and while it may have succeeded in preventing, to a certain extent, some spread of syphilis, the vast number of women who clandestinely indulge in prostitution are not reached by its operations, and it also does not take cognizance of the fact that this disease is spread by men as well as by women. If we are to have legalized prostitution regulated upon sanitary principles do let us be consistent, and subject the men who frequent the legalized houses to the same rules and regulations in regard to examinations, that the poor unfortunate inmates of these houses are subjected to.

That this is a vital subject can readily be seen from the fact that when the Medical Society of the County of New York began to investigate the subject of the Prophylaxis of Venereal Diseases in New York, in 1901, it was found that as near as could be estimated, there existed in New York City alone, somewhere in the neighborhood of 200,000 cases of syphilis, and in the whole United States, Gihon, a few years ago, estimated that there were at that time 2,000,000 cases. The importance of this subject is also emphasized by the fact that an "International Conference for the Prevention of Syphilis and Venereal Diseases" was held last month at Brussels; this being the second International Congress held for the purpose of deliberating upon the method of prevention of venereal diseases, the first one having been held three years ago at the same place. At this meeting were gathered together some of the most eminent men and women from every civilized country in the world, and those who participated in the meeting as delegates were not confined to the medical profession alone. It is true, they were in the majority, but there were also present legislators, jurists, editors, delegates from benevolent societies and representatives of the police.

My object in presenting this subject to you then, is to impress upon you, that syphilis is most prolific of harm to humanity, that its dire results are far reaching; that it is no respector of persons, it attacks all classes and makes itself felt as viciously in the palace as in the hovel, and that we, as physicians, going into families under all circumstances, and knowing all the skeletons that exist in the closets of the various families under our charge, can do more by educating our patients as to eth various modes of infection of this disease, and by advising with the younger ones among those whom we treat, than by all the laws that ever have been, or ever will be placed upon our statute books, can do to prevent the spread of *Lues*.

Climatic and Electric Peculiarities of Colorado Favoring Recovery in Pulmonary and Other Diseases.

By J. E. MacNeill, M. D.,

DENVER, COLORADO.

Read before the Mississippi Valley Medical Association, Kansas City, October 15, 1902.

IN considering the subject indicated by the title of this paper, the assumption is a plausible one that the large majority of the membership of this association have never familiarized themselves with Colorado, by personal observation or experience.

While much has been written on the subject and may be learned from research, the time and attention of the large majority of physicians at a distance is too closely occupied by the demands of their local practice to admit of careful study in this direction. It is, therefore, with the desire to add somewhat to their interest and possibly to their information regarding the health-giving and health-restoring advantages of the Centennial State that I appear before you, and with no desire to make any comparisons or statements prejudicial to any other state or locality. Nor is it my purpose to treat the subject as much from a scientific or theoretical standpoint as to state well attested facts calling the attention of medical men and of all others who may be interested, to a state possessing so varied and abundant advantages for all classes and conditions of men whether in the fullest enjoyment of health or seeking it.

A residence of nearly two decades in Colorado coming from about sea level—Chicago—where I had resided for a quarter of a century, and had become broken in health and spirits, has year by year added to my convictions that in a large proportion of human ills, and especially such as have passed beyond the acute stage, far greater hope can be held out for complete recovery, and far better results obtained than in the lower altitudes approximating sea level, or in localities contiguous to large bodies of water resulting in increased humidity and often to unavoidable malarial and other health detracting influences.

PHYSICAL CHARACTERISTICS OF COLORADO AFFECTING ITS CLIMATE.

Colorado is an empire by itself. One of the six largest of the forty-five states, with an area of nearly 104,000 square miles. It extends 380 miles east and west and 280 miles north and south. To the north lies Wyoming, to the south New Mexico, to the east Kansas and Nebraska, and to the west Utah.

It includes a territory equal in area to all the New England States plus Ohio or Illinois—or nearly equal to New York, Pennsylvania, New Jersey and Delaware—or equal to England, Ireland, Scotland and Wales. Of this area about one-third to the eastward from Denver, Colorado Springs, Pueblo, Trinidad, Ft. Collins and Greeley, or about 40,000 square miles is an immense plain, comparatively level and sparsely timbered while some 60,000 square miles to the westward is largely mountainous, comprising many mountain ranges traversing the state in a general direction from north to south. Included in this mountainous area are four great systems of natural parks with an elevation varying from 7,000 to 9,000 feet above sea level. Commencing at the northern portion of the state at 41 degrees north latitude, comes North Park with an area of 2500 square miles, or twice that of Rhode Island. It is 75 miles in length by 50 miles in width, with an altitude of 9000 feet, while the mountains environing it rise from 4,000 to 5,000 feet still higher. In no other portion of the globe is there a more perfect paradise for the hunter, while the many streams winding their way through this great plateau are the abodes of myriads of fish.

Next to the southward and separated from North Park by a mountain range comes Middle Park somewhat larger than North Park, containing about 3000 square miles and quite similar thereto in many of its physical characteristics. Within its boundaries lies the famed Grand Lake, one of the most beautiful of inland lakes on the continent and one of the largest in Colorado. In about its center and covering an area of about a mile square, it appears to be bottomless, the deepest soundings ever made failing to reach bottom. But ten miles away are located the still more famous Hot Sulphur Springs, six in number, in which waters boil up from the base of a cliff at a temperature of 117 degrees and for drinking and bathing possess remarkable virtues in diseases of the liver, kidneys and skin, and in dyspepsia and rheumatism and allied complaints.

To the southward from Middle Park and separated therefrom by the great Snowy Range comes the beautiful South Park some 50 miles in length by 20 to 30 miles in width, with an area of about 1000 square miles. This lies about 75 miles southwest from Denver and comprises the area in which was first discovered the rich gold mines that in the early days, some forty years ago, made Colorado famous. Here also are found mineral springs in various localities possessing waters of well-known medicinal virtues. The average elevation is 9000 feet.

Some 50 miles further to the southward and separated by several mountain ranges lies the largest of all these magnificent mountain amphitheaters known as San Luis Park with an area of some 10,000 or more square miles. It is elliptical in form and some 100 or more miles in length by 50 miles in width, and comprises the famous agricultural region of southern Colorado. It is bisected by the great river Rio Grande del Norte which flows through its entire length. It also contains a beautiful lake of the same name some miles in length, and which has no known outlet, although fed by some eighteen or twenty streams. Within its borders are seventeen mountain peaks at very equal distances each from the other, the loftiest being Sierra Blanca standing alone in its magnificance

and grandeur, crowned with perpetual snow and rearing its towering head 14,483 feet above sea level, or 336 feet higher than Pike's Peak. The average elevation of San Luis Park is 7,500 feet and is surrounded by mountains rising from 4,000 to 7,000 feet still higher than the plain, which is remarkably level.

The lands in all these great parks are rich in nutritious grasses and wonderfully productive in grains, vegetables and fruits of all kinds wherever cultivated.

Those who imagine there are no lakes in Colorado will be surprised to learn that this moutainous area alone contains a thousand or more besides over 250 rivers and many smaller streams that are mostly fed by melting snows that are stored in the mountains thousands of feet above until such time as the moisture is needed below. Truly a wise provision of nature, and one that adds vastly to the state's productiveness and resources.

Within this area is also stored Colorado's vast and incalculable mineral riches—inexhaustible in extent for many generations to come, secure in their nature-encased vaults until such time as the enterprise and genius of man shall discover and utilize them—gold, silver, iron, lead, copper, coal, petroleum, marble, granite, etc., towards the discovery, exploration and recovery of which scarcely a beginning has yet been made. Centuries will be required to explore their boundaries and values, and reveal to the world the incalculable riches of the Centennial State.

It can, therefore, be readily understood that in this wonderful variety of climatic conditions arising from the differing altitudes of mountain and valley, in the course and direction of its unnumbered mountain ranges, its proximate and remote mountain streams, lakes and water courses, its innumerable resorts at various altitudes more or less protected at any and all seasons of the year from the heat of summer and the rigors of winter, its 300 days out of the 365 each year of sunshine and cloudless skies, its entire freedom from malarial influences; advantages and conditions prevail that cannot be improved upon in any other state or country, conducive to health or to recovery from diseased conditions.

The atmospheric conditions at all seasons of the year are such that by careful study of the requirements of the patient, localities may easily be reached that will afford the best possible opportunities for recovery.

Within this great mountainous area of nearly 300 miles north and south by 200 miles east and west, are nearly 150 snow-capped mountain peaks ranging from 13,500 to nearly 14,500 feet in height, 72 of them being unnamed and 26 being loftier than the famed Pike's Peak. Within this area are also many valleys of almost winterless temperatures. The same latitudes at different places afford climatic conditions differing entirely, owing to variations in the trend of the valleys in which they lie and to their exposure to winds and to the sun's rays. The ever constant and important conditions of sunshine, dry air and blue sky common to all habitable portions of the state form its basic health restoring and sustaining qualities, equally advantageous to the sick and to the well.

MINERAL SPRINGS OF COLORADO.

As the world's greatest storehouse of minerals of every description, this immense area of geological and chemical wonders would be strangely incomplete without mineral springs of every known variety, and such it possesses in large and varied measure.

Disease that often defy scientific treatment readily yield to nature's remedies epitomized in waters flowing fresh from God's unseen and fathomless fountains, possessing healing virtues beyond the skill of man to duplicate. Chemical analysis and scientific comparison show that within this great area of phenomenal riches and resources, the waters that are famed for their medicinal virtues found in any other portion of America or in Germany, Austria, France or Switzerland are all duplicated, and that springs here exist that must eventually be known to the ends of the earth for their medicinal, health-giving and healing properties, thus again adding to the renown of the Centennial State and making it a Mecca to which pilgrimages will be made by countless numbers for the benefit of waters that shall forever flow "for the healing of the nations."

SOME GENERALLY ACCEPTED FACTS REGARDING MOUNTAIN CLIMATES APPLICABLE TO COLORADO.

After all the discussions that have been indulged in regarding the relative advantages of mountain climates as compared with altitudes approaching sea level, as health restorers in many diseased conditions and as health promoters where no serious abnormal conditions exist, certain accepted facts stand out prominently that must at once appeal most forcibly to all physicians as conditions of decided advantage in favor of high altitudes.

Elevations of 5000 feet and more above sea level may be regarded as mountain climates. Common to all such elevations, varying with local conditions, may be mentioned:

1st. Pure air, with relative freedom from noxious gasses and from irritating substances floating therein, as dust, etc.

2d. Diminished atmospheric density.

3d. Reduction in temperature.

4th. Diminished humidity.

5th. Powerful insolation as regards both heat and light.

It would hardly seem necessary at this time to emphasize the fact so generally understood and accepted, as to the relative purity of the atmosphere in mountainous regions, usually sparsely inhabited, compared with the atmosphere of lower altitudes pregnant with organic and inoragnic forms of various deleterious substances that so abundantly thrive where the conditions are so favorable for their growth and existence in more humid atmospheres, in thickly settled localities, with inefficient drainage and surroundings favorable to the generation of deleterious gasses, from decomposing substances, animal and vegetable, and to malarial and miasmatic influences.

Atmospheric density diminishes as we rise above sea level, in a ratio varying from 12 per cent at 2500 feet to about 25 per cent at 7500 feet.

The diminution in temperature as we ascend above sea level amounts to about one degree for every 300 feet of elevation.

The diminished absolute humidity of the higher altitudes, especially noticeable in Colorado along the entire foot-hill region on the eastern slope of the Rocky Mountains, is doubtless increased by the presence of a quickly absorbing and drying soil and the absence of frequent and prolonged rainfall. Also in the higher altitudes the sun's rays being more direct and powerful and of longer duration, forms a factor of great importance both to the invalid and also to those who are not included in this class.

Along this entire sun-kissed eastern Rocky Mountain slope of Colorado, extending for 400 miles north and south, the sun shines brightly about 62 hours out of every possible 100, while along the Atlantic coast it averages less than 50, while there the sun's rays are also lessened in force and directness and largely counteracted much of the time by clouds, fogs, mists and dense humidity, which in Colorado are for the most part unknown quantities and conditions.

During the winter months the contrast is still greater. In Colorado we have from December to March 56 per cent of all possible sunshine while along the Atlantic coast the average is but 37 per cent, thus showing a vast advantage in favor of the higher altitudes of Colorado.

Taking periods of ten years in Denver as compared with the same in more eastern cities at about sea level, we have an average of 314 clear or partly clear days, while in Chicago the average is but 251 days, and in New York City 262 days. Such figures as these speak for themselves and need no further comment.

Of incalculable advantage also is the early morning sunlight throughout this entire eastern portion of Colorado, as also very generally throughout the more mountainous portions, with its warmth and brilliancy as cheering as it also is beneficial in the early part of the day, either to the invalid in hastening recovery, or to those in health in sustaining and prolonging life. It is to be noted that the purity of the air depends largely upon the amount and intensity of the sunlight passing through it.

VALUE OF HIGH ALTITUDES WITH THEIR RAREFIED AIR AND DIRECT SUNLIGHT IN THE TREATMENT OF ABNORMAL CONDITIONS.

It would be difficult to name any disease or abnormal condition in the treatment of which a pure, aseptic, rarefied, clear, stimulating, sunny, dry atmosphere is not an inexorable requisite in accomplishing the best results. Medicinal remedies may or may not be demanded, but pure air and pure water—nature's sovereign remedies—must not be forgotten or denied. Wherever these can be found is where the sick or the well best thrive, and where the percentage of longevity will increase the most rapidly.

The researches and observations of climatologists of high standing in the profession and in the confidence of physicians the world over, who have for many years past made careful study of the relative advantages of high altitudes as compared with those approaching sea level, almost with-

out exception as regarding pulmonary diseases or tendencies in this direction within the possible curative stages, give the preference to the higher altitudes.

Dr. Charles Dennison, of Denver, and Dr. S. E. Solly, of Colorado Springs, who have made careful observations during twenty-five years or more past as their large opportunities have afforded, together with many physicians of the state and elsewhere, less widely known, may be mentioned in this connection, as also Drs. C. T. Williams, Herman Webber and H. H. Walsh, of London, Drs. Jaccoud and Jourdanet, of Paris, the late Dr. Carl Rudei, formerly of Denver and later of Davos Platz, Switzerland, Dr. Archibald Smith, of the Peruvian Andes, and others of note, all men of eminence and of large experience and observation in the treatment of pulmonary diseases, are a unit in ascribing the best possible attainable results to the higher mountainous altitudes.

ELECTRIC CONDITIONS.

While physicians of intelligence and wide experience in the practice of their profession in Colorado are convinced that in the realm of electric influence, a far more potent and beneficial factor exists in the higher altitudes favoring sustenance of the vital powers and recovery in many abnormal conditions, than exists in the altitudes nearer sea level, yet they also recognize the fact that our present knowledge regarding this force existing subjectively in individual cases, is not sufficiently advanced to enable us to measure, fully describe or define it with accuracy, and the subject is here mentioned with the hope that the members of this Association may interest themselves in further investigation with the view to the possible removal of the cause, operation and effect of such important phenomena from the domain of present speculative theory.

A thorough and analytical discussion of the influence of the sun upon our earth and its living organisms would occupy a field too wide for the limits of the present paper.

The peculiar power of the solar rays in its creative and hygienic effects upon animal and vegetable life deserves a high place in scientific investigation.

Throughout the entire solar system the sun diffuses heat, light and certain forces yet imperfectly understood, and may perhaps be the dynamic generator of the electricity of the world. Heat, light and that other power, which for convenience we may call electricity, beget something like a chemical agency, the most powerful and subtile in its creative and metamorphic results within the realm of human observation and science.

The sun may well be regarded, from a purely scientific standpoint, as the source of life, since all material forms of life, both animal and vegetable, could not exist without it. Hence as the creator and preserver of life, no wonder the ancients worshipped the sun—the most natural and rational of all primitive theogony.

True, there are certain classes of life, animal and vegetable, which seem to generate and thrive best in the environment of damp and darkness. They are the most useless and pestiferous sort, the lowest classes.

Vegetable forms of fungoid nature for example, and classes of insects of multitudinous and almost spontaneous breeding faculties, but short-lived, come into being away from sunlight. And with such genera we may class the microbic and parasitic forms of life. But it is remarkable that the sun is the enemy and great destroyer of these lower forms of insectivora, fungi, sporadic and microscopic malfere.

While on the one hand the sun is the greatest germinating agency in nature, on the other hand it is the great universal antiseptic and germidical agent in nature's economy.

It is familiar household knowledge that the best way to render wholesome such things as clothing, bedding, carpets, etc., is to hang or spread them out in the sun.

How can a poisonous swamp be best redeemed? By draining it and letting the sun consume the malarious and miasmatic elements. Nothing is so cheap and quickly efficacious an agent in this regard as the solvent, deodorizing, disinfecting and vermin destroying influence of clear sunlight and air, especially *dry* air.

The sun is the great scavenger of the earth. From the earliest travel across the plains and mountains between the Missouri river and the Pacific coast, no fact of common observation was more striking than the rapidity with which carcasses of animals dying along the routes were dried up and dissipated by the sun of the high and arid altitudes, with little or no putrefaction. Indeed Indians and Mexicans throughout this entire region from time immemorial, have cured their fresh meats by cutting it into strips and hanging it up unsalted in the sun, like clothes on a line.

The most primitive peoples of whom whe have knowledge in history or tradition, were not only familiar with the healing virtues of sunlight, but for this reason, as I have already mentioned, made the sun their chief god.

Osiris, the sun, was the god of the cultivated Egyptians, and under various names was the chief deity of the other leading Oriental races, as well as the god also of the Montezumas, their pyramid building prototypes of the American Occident.

And even the Hebrew poets of the Bible were so permeated with the ideas of the so-called "heathen"—derived from their former Egyptian masters, that they could not avoid incorporating these ideas into their sacred literature; as witness that beautiful passage of Oriental speech which figures their own God as the "Sun of Righteousness which arises with *healing in his wings.*"

THE FIRST EGYPTIAN MEDICAL CONGRESS will convene at Cairo, December 19 to 23, 1902. The congress will be divided into three sections: internal pathology, tropical diseases, surgery and ophthalmology. American physicians and surgeons will be greatly interested in the transactions of the section on tropical diseases; special consideraiton will be given to bubonic plague, Asiatic cholera, yellow fever and other diseases of hot countries. Professor W. W. Keen, of Philadelphia, has been elected honorary president of the congress.

The Methods of Using Argyrol.

By A. C. Barnes, M. D.

PHILADELPHIA.

Read by invitation at the Annual Meeting of the Tri-State (Alabama, Georgia, Tennessee) Medical Society, Birmingham, Ala., October 9, 1902.

IN accepting your kind invitation to read a paper before you I am deeply conscious of the honor conferred upon me, because many of your members occupy positions equal in honor and eminence with the leaders in modern progressive medicine. The subject I have chosen was selected for two reasons: first, as a body of practical physicians interested in the extremely important question of the treatment of disease, my subject will probably be interesting; second, my paper will be of the nature of an open letter in reply to many inquiries received from physicians in practically every State in the Union.

The original report of my colleague Dr. Hermann Hille and myself (Medical Record, May 24, 1902) concerning our discovery of a new silver salt was given considerable prominence in the medical press of America and Europe, particularly because of its wide field of application in therapeutics. This salt now known as Argyrol is chemically silver vitellin, the principal features of which are the high amount of silver contained, its easy solubility, its intense penetrative action and its freedom from the irritating properties possessed by the other silver salts. It is beyond the scope of this paper to deal with the chemical nature of the salt, and those interested therein are referred to our original report.

It is to the clinical application of argyrol that I would now direct your attention, and more especially to the methods of using the product in inflammatory conditions of the eye, ear, nose, throat and genito-urinary organs. The methods herein mentioned are those employed in the various clinics in many hospitals, including the University of Pennsylvania, city hospitals of New York and Boston, Jefferson, Good Samaritan, Berlin Polyclinic, Children's Hospital, Philadelphia, and in some eye and ear infirmaries of several of our large cities, by surgeons whose names and reputations are well known to you: Martin, Thomson, Horwitz, Swineburne, Christian, Bransford Lewis, Lederman, Mellor, etc. Most of these surgeons are preparing or have already finished, clinical reports embodying their experiences with the salt which will be published shortly. My paper will be merely a short resume of the methods of using the product now in vogue.

Diseases of the Eye.—Those oculists using argyrol employ it in the conditions formerly treated by silver nitrate or protargol. The rationale of its use in these diseases is based upon its high proportion of silver, its deep penetrative action and its entire freedom from irritating properties —for instance: A 20 per cent solution of argyrol corresponds to about a 10 per cent solution of silver nitrate, yet this strength of agyrol may be dropped in the normal eye without producing irritation or discomfort.

In *purulent conjunctivitis* a 25 per cent solution has been found to be the proper strength for routine use. Well-established cases of *ophthalmia neonatorum*, thus treated will be eradicated in two or three days. In the last ten cases of this affection treated by Mellor at the University Hospital one day's use of 25 per cent solution argyrol, sufficed to rid the eyes of pus and effect uninterrupted recoveries. The argyrol solution should be dropped in all parts of the conjunctival sac every three or four hours. With treatment instituted early in the disease corneal complications do not occur.

Gonorrheal Ophthalmia is best treated by strengths of 25 to 50 per cent solution according to the stage and extent of the infection. In very severe cases a 50 per cent solution instillated every two or three hours produces a reduction of the purulent secretion and affords comparative relief from pain.

An ordinary early case of this disease treated with free use of 25 per cent solution every two or three hours will terminate within a few days. For the catarrhal condition of the conjunctiva resulting from gonorrheal ophthalmia many oculists direct the instillation of a 10 per cent solution of arygrol three or four times daily; this may be done with perfect safety by the patient at home.

The effects of argyrol in *trachoma* are still unsettled. Gilfillan of New York used it at the House of Refuge with indifferent results; Thomson mentions one very pronounced case in which the lids were so swollen that it resembled ptosis, and in which he obtained great improvement by painting the affected lids with 20 per cent argyrol solution; this case had been treated with protargol without benefit.

For ordinary *catarrhal conjunctivitis* a 5 or 10 per cent solution for use by the patient at home three times daily, with the occasional local application of a few drops of a 25 per cent solution by the attending physician, produces in most instances prompt and permanent benefit; this same method of treatment is employed in blepharitis, blephero-conjunctivitis and blenorrhea. The most suitable strength for all around office use in treating corneal ulcers and the ordinary inflammatory conditions of the eye is 25 per cent; this strength does not cause irritation or discomfort.

The methods of using argyrol in diseases of the *nose*, *throat* and *ear* are perhaps best illustrated by quoting the experience of Dr. M. D. Lederman of New York, who has been using it for four months in his private work and at his clinics at the Manhattan Eye and Ear Hospital and at the New York Polyclinic. Dr. Lederman states: "I have employed solutions from 10 to 50 per cent in catarrhal manifestations of the nasal, pharyngeal and laryngeal mucous membrane; the applications were made with the usual cotton carrier every other day. The advantage this silver salt distinctly demonstrates is its freedom from irritation when applied to sensitive mucous membranes. In acute and subacute *laryngitis*, I have used a 10 per cent solution increasing to 30 per cent without the least unpleasantness to the patient. After two or three treatments the congested

appearance of the membrane gradually left and the voice returned in good volume; I particularly noticed that the harsh and dry sensation produced by silver nitrate was never experienced. The secretion was promptly stimulated by the argyrol solutions and produced a comfortable feeling of moisture in the pharynx and larynx. In *post-nasal catarrh* the character of the discharge was influenced by the argyrol solutions (20, 30 and 50 per cent). The thick plugs of mucus so frequently expectorated in cases of *naso-pharyngitis* and *inflammations of the lymphoid tissues* in the pharyngeal vault, became more fluid in consistency—showing the stimulating effect of the drug upon the mucous glands—and thus permitted the re-establishment of the normal function of the membrane and relieved the annoying symptoms of hacking and dropping in the throat; the same effects were noted from applications to the nasal mucous membrane.

The bland nature of the argyrol solutions was especially observed in cases of so-called "hay fever." Ten and 20 per cent argyrol solutions while naturally exciting some sneezing, as would result from any foreign element, seemed to lessen the existing hyperesthesia and retard the excessive flow of secretion; this blenostatic action I believe is due to the deep penetration of the argyrol.

The decided anti-germicidal action of the salt is illustrated by its effects in cases of *chronic purulent otitis media* with caseous necrosis. In these cases I employ a 50 per cent solution, freely in the middle ear cavity without any annoyance to the patient. The purulent character of the discharge is obviously modified after a few treatments and assumes a mucoid appearance"

In empyema of the antrum of Highmore, Hitschler uses a 50 per cent solution of argyrol once daily and notes prompt disappearance of the purulent discharge.

Genito-Urinary Diseases.—Dr. Orville Horwitz, Professor of Genito-urinary Surgery, Jefferson Medical College, treats acute cases of gonorrhea by ordering the hand injection of a 5 per cent solution of argyrol several times daily with whatever modifications and additions to treatment the cases may demand.

Dr. Bransford Lewis, Professor of Genito-urinary Surgery at Marion-Sims-Beaumont Medical College, St. Louis, says that he has had much greater success in both aborting and curing gonorrheal infections with argyrol than with any medicament he has ever used. For the abortive treatment of a beginning infection in the male, he prescribes a 2 to 4 per cent solution for the patient to inject with a No. 23 Goodyear syringe every two to three hours, day and night, holding it in the urethra four minutes each time; and has the patient call at the office once daily for a pint irrigation of 2 per cent solution. If the infection is not so recent, and both parts of the urethra are affected, Dr. Lewis has the patient use both irrigations and anterior injections each day, the former with a one quart fountain syringe, ten ounces of one per cent solution; and has the patient call every one or two days in order to re-inforce medication and to watch progress for variations in measures. For the female, in addition to urethral

and vaginal irrigations, according to the location of the infection, Dr. Lewis gently cleans the cervical canal and inserts into it a small strip of a narrow gauze soaked in ten per cent solution of argyrol, leaving the end of the strip hanging out so that the woman can remove it on taking her next douche; a pledget of argyrol-soaked cotton is also left in the vagina.

In acute gonorrhea, Dr. H. M. Christian, Professor of Genito-Urinary Diseases, Philadelphia Polyclinic, employs a 2 to 5 per cent solution by injection (by ordinary hand syringe) three or four times daily; the solution is held in the urethra five minutes. If the entire urethra is involved, he employs daily irrigations of 1 to 1000 solution.

In *chronic posterior urethritis* he makes deep instillations of 5 or 10 per cent solutions. Of his first 48 acute cases thus treated, 43 showed complete disappearance of gonococci from the discharge within fourteen days; 38 of these patients were discharged cured in from two to four weeks. In no instance did the injections produce irritation or discomfort.

Dr. G. K. Swineburne, Surgeon to the Good Samaritan Dispensary (the largest genito-urinary clinic in New York) has treated over 400 cases of gonorrhea with argyrol. His methods are as follows: In acute cases he irrigates the urethra daily with a 1 to 1000 or 1 to 2000 warm argyrol solution and follows this by a 2 to 5 per cent injection. If the patient cannot report daily, he orders the home use of a 2 per cent injection. He uses argyrol solution for irrigation where formerly he used potassium permanganate because of better results and greater comfort to the patient.

In *posterior urethritis* and *cystitis* he makes deep instillations of a 5 or 10 per cent solution. In chronic cases and in those requiring sounds he employs an ointment of 5 per cent argyrol in lanoline, the ointment being distributed along the urethra by successive use of several sounds upon the end of each of which the ointment is placed.

In acute cases of gonorrhea seen during the first or second day of the attack he injects a 20 per cent solution and has succeeded in aborting the disease.

Briefly stated the advantages noted in the argyrol treatment of urethritis are: the shorter duration of the disease, the power of the drug to allay the inflammation, the comparative comfort afforded the patient, and the entire freedom of the injections from irritating properties.

Diseases of Women.—In *specific urethritis* in the female Kevin injects a 10 per cent solution into the urethra and bladder. In purulent conditions of the vaginal mucous membrane, the vagina is douched with 1 to 2000 or 1 to 1000 argyrol solution, after which local applications of a 25 to 50 per cent are made through a speculum; these same methods are employed in ulcerations and erosions of the cervix.

Cases of *cystitis* are irrigated with 1 to 1000 solution followed by the injection of a 5 or 10 per cent solution into the bladder which is retained there for a few minutes, and then discharged by urination.

In *obstetrics,* argyrol is probably destined to play an important part because of its usefulness as a prophylactic against *ophthalmia neonatorum.* In several maternity hospitals the instillation of a 1 or 2 per cent solution into the newly-born infant's eyes, is a routine practice.

Other clinical conditions in which the use of argyrol has been suggested and is being tried are erysipelas (suggested by Dr. E. B. Gleason, Medico-Chirurgical Hospital as local applications 25 to 50 per cent solution) and certain pathological conditions of the mouth and teeth (suggested by Dr. W. H. Snider of the University of Buffalo). It is too soon to make any positive statements of the methods or effects of using argyrol in these two latter conditions.

It will be noted in reviewing my paper that argyrol has been used in almost every branch of surgery, but it will be recalled also that silver has been for many years the principal drug in nearly all of these conditions. Silver nitrate is a very valuable remedy, but its chemical nature necessarily endows it with certain drawbacks, viz., it is irritating, caustic, is chemically changed by the secretions, and is not penetrating much beyond the surface. Argyrol is not chemically changed by the secretions, possesses intense penetrative power, whereby the effects of silver are exerted in the sub-mucous structures (where they are most needed) and may be used in any structure of the body, in almost any strength, without destroying tissue or producing irritation. Furthermore (as all the surgeons mentioned herein have noted and commented upon) argyrol has one very marked property, i. e., its effects in allaying the signs and symptoms of inflammation.

24 N. 40th St.

THE X-RAY FOR LEPROSY.—The success of X-ray therapy in certain diseases has led to its use in leprosy. The result of the trial in Hawaii will be awaited with much interest.

HEARTLESS.—At the coroner's inquest held on the body of a county hospital patient in Chicago recently, it was found that some one had stolen the heart from the corpse.

WOMEN IN OFFICIAL MEDICAL POSITION.—Mme. A. Vassiliades has been appointed physician to the prison for women at Athens, the first woman to receive an official post in Greece. The new professor of anatomy at Milan is also a woman, Rina Martio.

VIRCHOW'S SUCCESSOR.—Johannes Orth, professor of pathologic anatomy in the University of Goettingen, succeeds the late Professor Virchow to the chair of pathologic anatomy in the University of Berlin. Professor Orth was for many years Professor Virchow's assistant.

WHOOPING-COUGH TO BE PLACARDED.—The New York City Board of Health has amended the section of the sanitary code relating to contagious diseases, so that it now includes whooping-cough. This makes it compulsory for physicians to report immediately to the Board of Health all cases of the disease they are called upon to attend.

Society Proceedings.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Proceedings of the Twenty-Eighth Annual Meeting, Held at Kansas City, Mo., October 15, 16 and 17, 1902.

STENOGRAPHICALLY REPORTED FOR THE MEDICAL FORTNIGHTLY.

The Association meet at the Midland Hotel, under the Presidency of Dr. S. P. Collings, of Hot Springs, Ark.

After the reading of the reports of the Secretary, Treasurer, Committee on Credentials, Committee on Publication, etc., the President delivered his address, "The Relationship Lues Bears to the Body Politic, which appears in full in this issue.

ADDRESS IN MEDICINE.

This was delivered by Dr. Hugh T. Patrick, of Chicago, who selected for his subject, "How Not to be Nervous."

The author stated that the initiative of all therapeutics should be prophylaxis. Prevention was paramount to cure. The first and most effective preventive of nervousness was a reasonably long line of first-rate forebears. To be able to present a specific illustration of the force of inheritance in the genesis of functional nervous affection, he had tabulated from his office records 100 consecutive cases which might be included under the general term nervousness, and he found that in 70 per cent of them a neurotic heredity had been in evidence. While a bad heredity was the most frequent and most potent factor in the production of nervousness, knowledge of this fact should not lead the profession into apathetic resignation; but rather make it face the difficulty with wise determination.

Next to the omnipresent, inevitable laws of inheritance, came the never-ceasing formative power of environment. Reaction to extraneous influences began at birth, and ceased only with the extinction of life, but childhood and youth were the plastic stages.

For preventing nervousness in the child or removing that already present, Patrick thought that there was nothing so effective as the toughening of the body and mind. A child who was made to have tough muscles, strong lungs and a vigorous digestion; who could stand changes of temperature and endure pain, was already a long way from nervousness. More important still was toughness of psychic fiber. The child who could support disappointment, who could be cross without a tantrum, and who habitually obeyed was building a bulwark against nerves, and the one who was not easily frightened, had self-control and a budding courage had nipped half a dozen neuroses in the bud. But to procure this toughness a certain exposure to bodily discomfort and mental hardship was necessary.

The author discussed at length the prophylaxis of the neuroses in children, and then passed on to the consideration of adult life. He said a deal of nervousness was caused or helped along by misdirected energy, misplaced worry, longing for baubles, the fighting of phantoms, etc, To

recognize the important things in life was one of the most difficult tasks of judgment that came to the individual.

To sum it all up, the author said: "If you wish never to be nervous, live with reason, have a purpose in life and work for it; play joyously; strive for the unattainable, never regret the unalterable; be not annoyed by trifles; aim to attain neither great knowledge nor great riches, but unlimited commonsense; be not self-centered, but love the good, and thy neighbor as thyself."

ADDRESS IN SURGERY.

Dr. Geo. W. Crile, of Cleveland, Ohio, delivered the address in Surgery. He selected for his subject "Operations for Cancer of the Mouth and Neck."

The author's summary is as follows: In the past three decades there has been a continuous decrease in the operative mortality, and with a single exception of the brachiogenic cancers, even a more notable increase in the percentage of cures has been accomplished. Especially in the last decade, there has been evidence of more confidence in operations as indicated by an increased number of cases submitted early. The supreme importance of early diagnosis, and early and radical operation, is becoming widely recognized. The same may be said of the so-called pre-cancer stage, especially of the tongue. Except of cancer of the upper jaw, the disease is now regarded as involving the regional lymphatic system. The disease may be found in the lymphatic vessels and lymphatic glands. It rarely extends to other parts of the body. Physiological and clinical evidences show that severing the thoracic duct causes but little disturbance, owing to its free anastamosis. That the effect of resection of the internal jugular vein is practically *nil*; that unilateral resection of the vagus does not alter the heart's action, the respiration, nor the digestion, but produces a permanent hoarseness only. That division of the superior laryngeal causes anesthesia of a part of the larynx but pneumonia is improbable that division of the inferior laryngeal causes paralysis of the corresponding vocal cord; but interference with respiration is not marked; that the division of the spinal accessory has but slight effect on account of the double nerve supply to the sterno-mastoid and the synergistic action of other muscles; that the division of the hypoglossal causes temporary interference with speech and swallowing but compensation occurs; that the submaxillary and salivary glands may be removed without symptoms; that the removal of the sterno-mastoid muscle is not followed by torticellia, etc., on account of the synergistic action of other muscles. The complete removal of the lymphatic system of one side does not produce pseudo-elephantiasis of the face and head. Permanent closure of the external carotid has an operative mortality of one to two per cent, due to the thrombosis and embolism. Permanent closure of the common carotid or internal carotid is attended by an operative mortality of about three per cent., but in the cancer period of life from twenty to thirty per cent, of cerebral complications follow, about fifty per cent of which prove fatal. Temporary closure of the carotid by means of a special clamp, as shown in the writer's forty-three cases, in which neither death nor cerebral complications occurred, is both efficient and safe. These physiological

and clinical data lead to but two objective points in unilateral operations for cancer of the mouth or neck, namely, complete removal of the disease and preservation of the blood supply to the brain. If necessary, sacrifice every other structure between the skin and the place of the deep muscles of the neck. Loss of blood is the greatest operative difficulty and danger. If hemorrhage is likely to be considerable, the common carotid should be closed during the operation. In the mouth cases, an anesthetic may be administered through rubber tubes passed through the nostrils to the level of the epiglottis, with the tongue well drawn forward. The pharynx may then be packed with gauze, so as to form an air-chamber in the lower pharynx effectively, and prevent blood from entering the pulmonary tract. The dissection should be made on the same plan and as thoroughly as in the radical operation for cancer of the breast. The greater ease and certainty with which diagnosis may be early made in this region, the rarity of extention of the disease beyond the glands of the neck, should enable the surgeon to obtain even better results here than in cancer of the breast. The hope of the patient lies in early diagnosis, early operation, and a logical technique.

A resolution was adopted, making the Mississippi Valley Association a district branch of the American Medical Association. The constitution and by-laws of the former will be revised to conform to this change.

The following officers were elected: President, Dr. Edwin Walker, Evansville, Ind.; Vice-Presidents, Dr. Hugh T. Patrick, Chicago, Ill., and Dr. Wm. Britt Burns, Memphis, Tenn.; Secretary, Dr. Henry E. Tuley, Louisville, Ky.; Treasurer, Dr. Thomas Hunt Stucky, Louisville, Ky.; Chairman Committee of Arrangements, Dr. J. L. Jelks.

Memphis, Tenn., was selected as the place for holding the next meeting in 1903.

[TO BE CONTINUED]

RHUS GLABRA IN ENURESIS.—Dr. J. Cassidy reports three cases of enuresis occurring in boys twelve to fourteen years of age. Each had received medical treatment previous to coming under the care of Dr. Cassidy. The lads were not sickly-looking, and took active exercise. Two of them undersized for their age and were of the nervous temperament; the third, who was well grown for his age, was of the lymphatic temperament. Prior to his taking charge of them the only treatment pursued at the institution had consisted in restricting the amount of fluid taken at night, and in making the lads arise from bed every night about 11, in order to urinate.

The prescriptions used were as follows:

℞ Iron citrate..... gr. 160
Syrup calcium lactophosphate.....
Syrup cascara aromat.....aa ʒij

Sig.—A teaspoonful after dinner (noon).

℞ Fl. ext. rhus glabra..... *m* 320
Syrup.....q. s. ad ʒij

M. Sig.—A teaspoonful at bedtime.

Treatment continued regularly from day to day for three months, the lads being free from their complaint, after which it was discontinued, and has not been resumed since.—*Can. Jour. Med. Sur.*

MEDICAL MEMORANDA.

I find aletris cordial to be an excellent and palatable preparation. I have used it in cases of dysmenorrhea, irritable ovary, uterine congestion, leucorrhea and endomentritis, with the best of results. In a case of irritable ovary, that had resisted all treatment for four years, I prescribed aletris cordial, and after taking for four days, the pain was entirely relieved.—T. R. DICE, M. D., Utica, Mo.

Chronic Albuminuria.—Last April I was called to attend a man, 64 years old, who had been suffering from "chronic albuminuria" for nearly two years, his urine was heavily loaded with albumin, and he was so badly bloated that at times his eyes were closed and his hands were almost useless. I had but little idea of doing more than possibly to make him comfortable temporarily. After a while, not having accomplished much, for a change I gave him some protonuclein, and to my surprise I found (in the course of a month) his urine almost free from albumin, and the dropsical condition entirely relieved. Thinking perhaps it might be a coincidence I stopped the protonuclein for a time and found the albumin increasing. I began giving protonuclein again, and in a week's time the urine was almost free from albumin, and the general condition is highly satisfactory.—A. Frank Taylor, M.D., Castle Creek, N. Y.

Eddyism.—The rapid growth of the so called Christian Science cult is one of the incomprehensible facts of an intelligent age. Where a mind boasting the least claim to logical thought can find in its tenets the least trace of anything really christian or scientific has yet to be pointed out. Were the body less aggressive and were not their teachings an absolute menace to the health and well-being of our nation we might ignore it, but it is an active and growing foe, the physical and mental well being of the nation demands its extermination. Both the medical and secular press have devoted considerable attention to the subject, largely in the way of ridicule, but the most powerful, logical and altogether unanswerable argument we have yet seen is comprised in a series of short lectures by Rev. Andrew F. Underhill, of St. John's Episcopal Church, Yonkers, N. Y., entitled "Valid Objections to So-called Christian Science." Realizing that their interests are identical with those of the medical profession, and that the enemy of one is the enemy of both, The Arlington Chemical Company is anxious to do its part in relegating this absurd cult to the limbo of oblivion where it may rest peacefully side by side with the many foolish fads that have preceded it. Appreciating the force of the argument referred to, and being convinced that it will place in the hands of the physician a well forged weapon wherewith to combat such a subtle and dangerous enemy, The Arlington Chemical Company has obtained the permission of the author to reprint these lectures in booklet form and distribute them to physicians. If any of our readers have been overlooked in the mailing, a request to the above company will bring a copy.

How to Assist Young Girls to Womanhood (By Edward C. Hill, M. D., Denver Colorado).—The primary establishment and the menopausal cessation of menstruation are the two crucial physical epochs of woman's life. The change from maidenhood to womanhood is one that involves the whole body, and manifests itself alike in the form, the voice and the sexual and

nervous phenomena. In an ideal state of perfect health this transition into puberty should be as natural and uneventful as gliding from sleep into consciousness. Owing, however, to the present civilized modes of living, the cerebral development of young girls is fostered and forced to a degree that deprives the remaining tissues and organs of their necessary nutrition, and too often we are called upon to treat delicate girls that are like buds blasted in the blossoming. Many a woman traces back a prolonged existence of semi-invalidism to exposure and lack of care at the early menstrual periods. Tight lacing also predisposes to pelvic disorders by interfering with circulation and exciting uterine displacements. The strain of puberty upon the nervous and blood-forming structures may be too great in a subject hereditarily deficient in vital resistance and adaptability. So we may count among the morbid incidents more or less peculiar to puberty, chlorosis and anemias, general debility, neurasthenia and hysteria, acute pneumonia, phthisis, chorea and hebephrenia.

According to Emmet, more than half of all women who have suffered at puberty from menstrual derangements are sterile and delicate in after life. Skene has stated that his observations showed that the vast majority of incurable diseases peculiar to women originate in imperfect development and consequent derangement of function. This development is either primary, during the embryonic stage, or secondary, at puberty. Defects in the former are irremediable, whereas secondary deviations from the normal standard are both preventable and curable in most instances. It is important in connection with the subject under consideration to bear in mind the essential reciprocal relations of the reproductive system and the general organization. As Virchow says, all the specific properties of woman's body and all her characteristics, depend upon her ovaries. In other words a woman is not fully a woman unless her sexual development is natural and complete and in line with a healthy general organization. A beautiful illustration of sexual dimorphism has been furnished by Prof. Max Weber (quoted by Skene), who presented the case of a chaffinch in which the left side of the body had the female coloration and the right side of the male bird, the two colors being sharply limited at the middle line. The bird was a hermaphrodite with a well-developed ovary on the side of the female plumage, and a testicle on the opposite side. The phenomena of menstruation offer the most palpable evidence of the onset of puberty. The precise nature of the rythmic cycle is overshadowed by a jungle of theories, and, as Millikin well says, we can do no better in the present state of our knowledge than accept menstruation as a habit which has been nailed upon our race by hereditary, and which is for us an ultmate biologic fact. Normal menstruation in temperate climates generally begins in the fifteenth year. In the tropics it appears much eartier, so that in Mexico one may see a grandmother of only twenty years. Within the Arctic Circle Eskimo girls do not generally arrive at puberty until the eighteenth year. City girls usually have the menstrual flow earlier than do hard working country girls, in whom muscular exercise has the same derivative effect on the pelvic blood supply as too intense devotion to study. The time, amount and character of the menstrual flow vary normally within wide limits. The menstrual cycle for different individuals ranges in perfect health from two to six weeks. The average duration in the temperate zone is about four

days. Soaking more than three napkins daily is considered abnormal. Anemic girls, as a rule, tend to menorrhagia; chlorotic ones, to scanty menstruation. Clots are present when the amount of blood is great, or the mucous and fatty acids scanty. A periodic whine menstruation, from supersecretion of the uterine glands, is not infrequently noticed in the intervals midway of menstruation. Menstruation is or should be a perfectly physiologic process. In the virgin disorders of menstruation of whatever nature are nearly always dependent upon the defective nutrition of the reproductive organs, and this in turn upon a blood supply insufficient in quality or in quantity. In the great majority of cases, therefore, our efforts to aid nature in effecting the transformation of the girl into a woman, should b in the line of a happy balance of nutrition between the special female organs and the body as a whole.

Hygienic measures are of the first importance. Fresh air and sunshine are always in order. Exercise is especially indicated for the fat and flabby chlorotic girl, and her diet should be restricted in sugar and starches. The highly active, intellectual girl must rest from her studies and try to become a little lazy. Proper precautions should be taken in regard to reasonable care of the person at the time of the monthly periods. Yet the physician should beware of unduly alarming his little patient, and so bringing about a condition of hypochondriacal valetudinarianism. Simple cleanliness is certain to do no harm, but good. The conservation of the general health and vigor is the chief factor in maintaining safe and easy menstruation.

The most constant and positive clinical sign of imperfect puberty is deficiency of the blood in red corpuscles and hemoglobin, the chlorotic type being perhaps more common than the simple anemic in relation to menstrual disorders. Hemic defects and malnutrition act reciprocally as cause and effect. The oxidizing life of the blood is in the iron it contains, with about one-twentieth as much manganese. The total iron of the adult body amounts to but 2.5 or 3.5 grams, chiefly in the form of hemoglobin. The normal daily content of iron in the food of an average diet, is, according to Stockman, from five to ten milligrams. When absorbed, as in health, this food-iron replaces the metal continually lost by disintegration of blood corpuscles and excretion. The round of iron in the body seems to be from the duodenum to the mesenteric glands, thence to the thoracic duct, the general blood current and the spleen, from where it passes to the liver to be synthetized into hemoglobin for the red cells, on the breaking down of which the dissociated iron is eliminated by way of the large intestine.

The use of iron in anemic and chlorotic conditions is, of course, a cardinal principle in therapeutics. In girls becoming women to supply a deficiency of erythrocytes or hemoglobin, one might infer at first thought that the best method would be to administer hemoglobin, that is, blood in some form. Chemistry proves, however, that when hemoglobin is taken into the stomach it is changed by the acid there to hematin (causing the coffee-ground color of small gastric hemorrhages), which, according to Cloetta, passes down the alimentary tract without being absorbed.

Most authorities conclude that inorganic compounds of iron in order to be absorbed must first be changed to albuminates by combining with food matters. All albuminous substances are hydrolyzed to peptons before they are capable of absorption. Hence it follows that a peptonate of iron is the

preparation most likely to be readily and completely absorbed and assimilated. The best remedy of this composition, I think, is Gude's pepto-mangan, which I have used for the past ten years with great satisfaction, particularly in the hemic and nutritive disorders of female puberty.

This neutral solution contains three grains of iron and one grain of manganese in each tablespoonful. The latter ingredient is doubtless to be credited with a large part of the nearly specific effect of the remedy in functional menstrual derangements. The preparation is pleasant to the eye, agreeable to the palate and has the great advantage over inorganic iron compounds of not corroding the teeth, deranging digestion nor inducing constipation. According to the nature and severity of the case, the dose varies from a teaspoonful to a tablespoonful. It is well taken in milk or sherry just after meals.

The following brief clinical notes may serve to illustrate the facts above stated. The blood count in each instance was made with the Thoma-Zeiss hemacytometer; hemoglobin was calculated by the Hammerschlag specific gravity method. I need hardly remark that the blood findings at the altitude of Denver are normally higher than at points near sea level.

CASE 1. Jose K., 15 years, thin, delicate and somewhat strumous, had menstruated irregularly and intermittently for 16 months; erythocytes 3,600,000 hemoglobin 58 per cent. She was taken out of school, put on a diet largely protein, given aloin, strychnin and belladonna pills for her bowels, and for her blood, pepto-Mangan (Gude), a dessertspoonful four times daily after eating. Under this treatment she made an average weekly gain of 1¼ pounds in weight, about 150,000 red cells and 3⅓ per cent. hemoglobin, and was discharged cured in ten weeks.

CASE 2. Alice R., 18 years, rather stout, but pale, with greenish tinge; complained of palpitation and breathlessness on slight exertion; menstruation barely begun and scanty. She was made to take gradually increasing exercise on her bicycle, a cool bath every morning, less carbohydrates and more proteins in her diet, and pepto-mangan (Gude) in the dose above mentioned. She recovered from all her morbid symptoms within four months. and has since married and given birth to two healthy children.

CASE 3. Amelia B., 23 years old, an overworked servant girl, had suffered since the periods first began, nine years before, with marked dysmenorrhoea, the flow being prolonged but rather scanty. The red blood cells numbered 3,800,000 per cu. m. m., with proportionate oligochromia. She was induced to rest at home and take six eggs daily, along with other nourishing food and pepto-mangan (Gude), a dessertspoonful four times daily an hour after food. She made a very rapid recovery, the red cells running up to 4,600,000 within two months and the menstrual periods becoming quite normal. By exercising proper care she has remained well for the past eight years.

In conclusion the writer would like to emphasize the peculiar physiologic efficacy of pepto-mangan (Gude) in aiding young girls to a normal womanhood, when the crises of puberty is complicated with any defect in blood-making and nutrition. Its action is prompt and pleasant, and the clinical benefits derived from its use are readily apparent to all concerned. In curable cases it is as nearly specific as any combination of drugs could be.